DOCUMENT RESUME

ED 401 719 FL 024 151

AUTHOR Akyel, Ayse; Kamisli, Sibel
TITLE Composing in First and Second Languages: Possible Effects of EFL Writing Instruction.
PUB DATE Sep 96
NOTE 31p.; Paper presented at the Balkan Conference on English Language Teaching of the International Association of Teachers of English as a Foreign Language (2nd, Istanbul, Turkey, September 5-7, 1996).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS College Students; Comparative Analysis; Contrastive Linguistics; *English (Second Language); Foreign Countries; Higher Education; Instructional Effectiveness; Protocol Analysis; *Second Languages; Student Attitudes; *Transfer of Training; *Turkish; Uncommonly Taught Languages; *Writing (Composition); *Writing Instruction; Writing Processes; Writing Strategies
IDENTIFIERS Turkey

ABSTRACT

This study investigated the relationship of first-language (L1) and second-language (L2) writing processes and possible effects of L2 writing instruction in an academic context on L1 and L2 writing strategies and attitudes. Specifically, the study asked whether (1) there are similarities and/or differences between Turkish and English writing processes of Turkish students of English as a Foreign Language (EFL), (2) L2 writing instruction affects their L2 writing processes, (3) L2 writing instruction influences the L1 writing processes in a way indicating the process of transfer is bi-directional, and (4) L2 writing instruction affects attitudes toward writing in English and in Turkish. Subjects were eight Turkish students of EFL in freshman composition courses in an English-medium Turkish university. Data were drawn from analyses of think-aloud protocols, student compositions, questionnaires, and semi-structured interviews. Results indicate that L1 and L2 had more similarities than differences. In addition, writing instruction in L2 positively affected these EFL students' L1 and L2 writing strategies and attitudes toward writing, in both L1 and L2. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 401 719

Composing in First and Second Languages: Possible Effects of EFL Writing Instruction

Ayşe Akyel and Sibel Kamışlı*

This study investigates the relationship of the L1 and L2 writing processes and the possible effects of L2 writing instruction based on interactivist orientation to writing process in an academic context on L1 and L2 writing strategies and attitudes. Specifically, it addresses the following research questions: a) Are there similarities and/or differences between Turkish and English writing processes of Turkish EFL students? b) Does L2 writing instruction affect their L2 writing processes? c) Does L2 writing instruction influence their L1 writing processes indicating that the process of transfer is bi-directional? d) Does L2 writing instruction affect their attitudes toward writing in English and in Turkish?

Eight Turkish EFL students participated in this study. Data came from analyses of think-aloud protocols, compositions written by the participants, questionnaires, and semi-structured interviews.

Findings indicated that L1 and L2 writing showed more similarities than differences. Moreover, writing instruction in L2 positively affected these EFL students' L1 and L2 writing strategies and attitudes to writing both in L1 and L2.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Ayse Akyel

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

FL024157

BEST COPY AVAILABLE

* The two authors contributed equally to the research reported in this paper.

Introduction

Research on EFL/ESL process writing has focused on a wide scope of topics. Some researchers have analyzed the writing processes of skilled and unskilled writers (Jacobs, 1982; Jones, 1982; Raimes, 1985, 1987; Zamel, 1982, 1983) and some have compared their results (Raimes, 1985, 1987; Zamel, 1982, 1983) with those of relevant research on native speakers of English (Emig, 1977; Flower and Hayes, 1980; Perl, 1979; Pianko, 1979; Rose, 1980; Sommers, 1980; Faigley and Witte, 1981). One overall conclusion to be drawn from research to date in L2 composing and a comparison of the results with those of L1 composing process research is that the composing skills of proficient and unskilled L2 writers are very similar to those of skilled and unskilled L1 writers.

Recently the idea that L1 and L2 writing processes are interrelated has gained prominence among process-oriented researchers and prompted a series of studies examining ESL/EFL writers' L1 and L2 writing processes. While some of these cross-language studies have focused on general analyses of composing processes (Arndt, 1987; Chelela, 1981; Edelsky, 1982) others concentrated on text planning (Akyel, 1994; Cumming, 1987; Friedlander, 1990; Jones and Tetroe, 1987; Lay, 1982) or revision (Gaskill, 1987; Hall, 1990).

The picture from these within-subject studies (i.e., comparison of people writing in the L1 and L2) show that there seems to be evidence for transfer of some L1 knowledge and writing skills to L2, i.e., knowledge of spelling and manipulation of style (Edelsky, 1982), using cohesive devices (Chelela, 1982), planning content (Cumming, 1987; Jones and Tetroe, 1987), using thinking strategies (Cumming 1989). Moreover, Arndt (1987) in her study of L1 and L2 writing processes of six Chinese EFL students found that despite slight differences in L1 and L2 writing processes especially related to vocabulary, L1 and L2 writing processes of each individual writer were generally similar.

On the other hand, studies that focused on revision strategies and transfer across languages (Gaskill, 1987; Hall, 1990) or analyzed revision strategies as well as other writing strategies such as taking notes, using cohesive devices (Chelela, 1982) found contradictory results. While Chelela's subjects did less reviewing and revising during L2 composing, the subjects in Gaskill's study (1987), reviewed and revised almost equally in L1 and L2 than that of L1. The findings of Hall's study (1990), however, indicated that there were more revising and reviewing episodes during L2 composing process than that of L1 composing. Hall also found that some revising strategies were unique to L2 in the sense that recursiveness "took on an additional function in L2 composing" (1990:56). Yet, Hall observed that despite these differences, there were also striking similarities with regard to revision of both linguistic and discourse features, and concluded that L1 revising strategies may be transferred to second language. He also suggested that research is

needed to investigate if instruction in L2 writing affects L1 writing strategies indicating that the process of transfer is "bidirectional and interactive" (1990:56).

Researchers have observed the effects of process writing instruction on ESL students' writing abilities and articulated the benefits of process-oriented composition instruction for L2 learners (Diaz, 1985; Edelsky, 1982; Urzua, 1987). Moreover, Spack (1984) observed that ESL students benefited from instruction of invention strategies, i.e. list making, oral group brainstorming, dialogue writing, keeping journals. Hence, the focus of these studies was to test the effects of methods of instruction which are aimed at stimulating reflection and evaluation in the students' writing process (see for example Couzijn in this volume). However, to the knowledge of the researchers, no study has been conducted on possible effects of a second language writing instruction on L1 writing.

THE STUDY

The present study was aimed at investigating issues related to the L1 and L2 writing processes and the possible effects of L2 writing instruction on L1 and L2 writing processes. The study was undertaken in an EFL situation with Turkish writers, who have a different culturally determined educational background than those involved in previous studies. In doing so, the study was also aimed to provide further evidence from a different EFL context for the relationship of L1 and L2 writing processes previously investigated in within-subject comparisons of individuals' writing in L1 and L2. Specifically, the study addresses the following research questions: 1) Are there similarities and/or differences between Turkish and English writing processes of Turkish EFL students? 2) Does L2 writing instruction affect their L2 writing processes? If so, in which ways? 3) Does L2 writing instruction affect their L1 writing processes indicating that the process of transfer is bi-directional? 4) Does L2 writing instruction affect their attitudes toward writing in English and in Turkish?

METHOD

Participants

Eight Turkish students enrolled in the freshman English composition courses in the English Education Department of an English-medium university in İstanbul volunteered to participate in this study. Students are admitted to the freshman year with a minimum of 550 on the TOEFL together with 4.5 on the writing component of the TOEFL or a corresponding score on the university's English Proficiency test, which is said to be equivalent to the Michigan Test of English (Hughes, 1988).

Writing scores of all of the participants were 4.5. All of the participants were graduates of private or special public high schools where medium of instruction was

English. They were all female and native speakers of Turkish representing people from urban and rural backgrounds and belonging to various socio-economic groups.

Writing instruction

In line with current approaches to academic writing (Horowitz, 1986; Reid, 1990; Rose, 1980; Silva, 1990; Spack, 1988), the 2-semester (3 hours a week) freshman composition course offered in the English Education Department was designed to teach students systematic thinking and writing skills so that they can use their own composing strategies effectively to explore ideas while writing in response to a specific assignment. In addition, the course was aimed at L2 writing instruction based on interactivist orientation to writing process in an academic setting. For example, the students were engaged in tasks to improve/develop their knowledge of conventions of genre, coherence and formality at discourse level as well activities like invention strategy building, list making, looping, oral group brainstorming, cubing and keeping journals. Moreover, in line with the interactivist orientation to writing process (Bakhtin and Medvedev, 1987; Nystrand 1989, 1992), the course was also aimded at encouraging interactive production and revision of the compositions. To serve this purpose, the students were trained to do mapping in groups to facilitate creation of new ideas, rewriting drafts based on peer or teacher feedback, and editing. Revision activities, included discussions focusing on the clarity of purpose, expectations from the task, specification or clarification of vague points, and suggestions for possible revisions. In a sense such activities were aimed at raising the student writers' awareness of the interactive nature of text production (see for example Caudrey and Pógner, 1996 in this volume). The researchers carried out participant observations of the course at least once a week. The study measured the effects of the instruction at the end of the 19th week (1.5 semesters).

Tasks and data collection

An introduction to the project and thinking aloud while composing was provided to the subjects as done in some other ESL/EFL studies (e.g., Arndt, 1987; Lay, 1982; Raimes, 1985, 1987). The subjects first listened to both of the researchers composing aloud both in Turkish and in English in two consecutive sessions. Then they were asked to compose aloud in both languages until they thought they were comfortable with the task.

During the first week of the semester, the student writers (henceforth SWs), were given two writing tasks, one in English and one in Turkish (see Appendix I). For each writing task, the subjects had to choose from two topics given in the descriptive mode which is a rhetorical pattern that each of the 8 student writers most frequently experienced using in their Turkish and English composition classes. In addition, the researchers tried to select the topics the students were familiar with. This conclusion was based on the

findings of the questionnaire investigating their writing experience as well as their conceptions and attitudes toward writing in Turkish and English. During the composing sessions, the subjects were asked to compose aloud to a taperecorder in a natural setting. Although the researchers had planned for not giving time limits, an analysis of the schedule of each student writer indicated that none of them could devote more than three hours for each writing task. Nevertheless, they were told that they were free to use as much time as they needed for the writing task.

At the end of the 19th week of the instruction, the SWs were again given two writing tasks, (see Appendix I), one in Turkish, one in English. For these two writing tasks, they followed the same procedure, i.e., composing aloud in a natural setting with no time limits and choosing from two topics. The SWs were again required to use the same rhetorical pattern (descriptive mode) to avoid a possible confounding factor. Moreover, like in the first task, the topics for the second task were also chosen taking into consideration students' familiarity with the topics. Furthermore, since the prompts in Task I and Task II require the student writers to describe a place, or a person, a season, or a Turkish university student's life style, the researchers thought that they would also avoid facing effects of topic differences as a second confounding factor.

Right after each composing task, before the instruction and at the end of the 19th week of the instruction, the subjects were asked to respond to a self-evaluation form, i.e., a semi-structured questionnaire which basically had questions related to their writing strategies as well as perceptions and attitudes toward writing (see Appendix II). The responses to the questions were used to cross-validate the findings with composing aloud tapes. For the purposes of the study, the researchers also interviewed the student writers to further explore their previous exposure to writing in English and in Turkish, their conceptions of and attitudes toward writing in both languages and the type of changes that they felt existed or took place in their writing in L1 and L2, if there were any.

Data Analysis

Think-aloud protocol analysis

The composing tapes of the student writers were transcribed and analyzed by the researchers independently. When the differences in the frequency counts occurred, the researchers resolved the discrepancies through discussion. For the analysis of the transcripts, Raimes' coding scheme (1987), a modified version of Perl's (1979) coding scheme, which was further modified by Arndt (1987) for an EFL context was used. In addition, the researchers added to the coding scheme, two revision subcategories of combination (i.e., combination of two sentences or paragraphs) and reorganization (i.e., a reorganization within or across paragraphs) which were incorporated in Pennington and Brock's (1987) coding scheme (see Appendix III).

The transcribed texts were analyzed in terms of the frequency of composing strategies (i.e., the number of occurrences of the writing strategies that are included in the coding scheme) employed by the SWs.

First, the Turkish and the English essays composed at the beginning of the semester were analyzed to examine the similarities and/or differences between L1 and L2 composing processes. Then, the English essays composed at the beginning and end of the 19th week of the instruction were compared to examine the possible effects of L2 writing instruction on L2 writing processes of the student writers. Finally, the L1 essays composed at the beginning of the semester and the end of the 19th week of the instruction were analyzed to see the impact of L2 writing instruction on L1 writing processes. The English and Turkish compositions written at the beginning and end of the instruction will henceforth be referred to as T1, E1, T2, E2 respectively.

Global quality scoring of the compositions and time spent on writing

The Turkish and English compositions were graded by two trained Turkish scorers. In evaluating the compositions, the scorers applied the holistic grading system used at present by graders evaluating the compositions written for the Bosphorus University proficiency exam, focusing mainly on content organization and language use. Using Pearson Product-moment correlation coefficients, interrater reliability for the two raters on Turkish compositions was .89 and interrater reliability for the two raters on English compositions was .90.

In addition as a quantitative measure, the time student writers devoted to the prewriting and composing stages of their English and Turkish compositions was calculated.

The Statistical Package for Social Sciences (SPSS) was used for the statistical analysis of the data related to the writing strategies utilized by the students, global quality scoring of the compositions and the time spent on the the prewriting and composing stages. In accordance with the objectives of the study, Pearson Product-Moment coefficients, and Wilcoxon Matched-pairs Signed-rank tests were computed. The level of significance was set at alpha = .05.

FINDINGS AND DISCUSSION

The results are presented according to the study's four research questions.

English and Turkish writing processes before the instruction

To see whether there were similarities and/or differences between the participants' writing strategies in Turkish and English before the instruction, a comparison was made in terms of the strategies they employed before writing (prewriting strategies)

while writing (composing strategies), and the time devoted to these processes. Moreover, a comparison of the global quality of the Turkish and English compositions was made.

Prewriting strategies

Using Wilcoxon Matched-pairs Signed-rank Test, the frequencies with which these writers employed the prewriting strategies were compared. The results indicated that SWs planned more frequently at the significance level of $p<.05$ during the prewriting stages of the English compositions than that of the Turkish compositions (see Appendix IV, Table 2). On the other hand, they employed the reading the topic strategy more frequently at the significance level of $p<.05$ during the prewriting stage of their Turkish compositions. Moreover, although they rehearsed more during the prewriting stage of the English composition, this difference was not statistically significant.

The same statistical procedure was followed to compare the time these student writers spent on for prewriting and the composing processes of their Turkish and English compositions. The results indicated that they devoted more time to the prewriting stage of the Turkish composition than that of the English composition. On the other hand, these students devoted more time to the composing processes of the English composition than that of the Turkish composition. However, these differences were not statistically significant (see Appendix IV, Table 2).

According to the results, 31% of the prewriting activities belonged to SW7 (see Appendix IV, Table 1). The rest were engaged in the prewriting activites almost in equal frequencies. During the prewriting stage of the Turkish writing task, the writers mainly read the topic and were concerned about how to begin their composition, especially the very first sentence of the introduction. On the other hand, the writers' prewriting operations during the writing of the English compositions seems to be focused on more content planning.

Global quality scoring

The results indicated that mean scores for T1 were significantly higher than those of E1 ($p<.01$) (see Appendix IV, Table 3).

Composing strategies

The strategies employed by the student writers while composing in English and Turkish were compared in terms of a) general strategies; b) surface level revision strategies; and c) deep level revision strategies.

General writing strategies

The results indicated that there were no significant differences between planning, rehearsing, reading the topic operations employed by the student writers for the Turkish

and the English compositions (see Appendix IV, Table 4). In addition, there were almost equal instances of pausing for both compositions. However, the SWs made significantly more assessments and comments and questioning ($p<.05$), read the entire Turkish composition more frequently ($p<.05$) when they finished writing it than the English composition ($p<.05$).

The protocol analyses indicated that SW7 planned most for the Turkish and for the English compositions (see Appendix IV, Table 5). On the other hand, SWs 1, 2 and 8 rarely planned while writing compositions in English or Turkish. In general, the few planning operations of these writers reflected a concern about what they should be talking about next while writing in Turkish and English. Or closely related with this, they also tried to make sure that the ideas followed one another in a logical sequence. Moreover, there were instances of switching back and forth from English to Turkish while they were planning what to write or how to proceed during the English writing task.

In general, the writers rehearsed for two major reasons during the Turkish task. One was to try out ideas and to assess to what extent the ideas they wanted to write expressed what they really wanted to convey to the reader. The writers' rehearsing operations while writing in Turkish also reflects their concerns with semantic and stylistic options to enrich content.

While rehearsing for writing the English composition, however, the writers were basically concerned with searching for the right word and/or checking their grammar. In general, limited grammar and vocabulary knowledge in English led them to try to express themselves with the words they knew rather than considering stylistic options for a richer content which was more frequently done while they were writing the Turkish compositions.

During the writing of the English composition, 42% of the instances of rescanning belonged to SW4. Furthermore, as far as the Turkish task is concerned, again SW4 rescanned most excepting SW3, the rest rescanned once or twice during the composing process. Moreover, SWs 1 and 2 did not use this strategy at all. The protocols indicated that the student writers like Raimes' subjects (1989:455) rescanned basically to move forward and develop the next idea in both writing tasks. In addition, during the writing of the Turkish compositions, they were concerned with finding a focus or framework within which all the ideas should be related to each other. While writing the English text, on the other hand, they in general, reread parts of their texts for surface level revisions.

The switches to L1 during L2 writing occurred when they were planning what to include and write next, and making content specific and personal comments and assessments or rehearsing for writing. The comments and questions covered a range of

concerns about problems related to writing conventions and style, and their personal feelings about writing.

Surface level revision strategies

The results indicated that the student writers utilized each of the surface level revision strategies more frequently while composing in English than in Turkish (see Appendix IV, Table 4). However, these differences were statistically significant only in terms of the utilization of addition ($p<.05$) and substitution ($p<.05$). According to the results, 70% of the whole editing operations for the Turkish task were equally shared by SW2 and SW6. Three people did not edit at all. With regard to editing for the English task, 26% of the total editing operations belonged to SW5.

Deep level revision strategies

The findings indicated that the frequencies with which these writers utilized each of the deep level revision categories while writing Turkish and English compositions did not differ significantly from each other (see Appendix IV, Table 4). According to the findings, deletion and substitution with a combined frequency of 18, constituted 72% of the revising operations for the Turkish task (see Appendix IV, Table 7). Hence, although there were instances of reworking of entire sentences, most revision operations in English compositions were alterations of single words, whereas almost all the revision operations of the writers while composing in Turkish were at sentence or paragraph level. However, the writers in this study like the inexperienced writers in Sommers (1986) and Bridwell's (1980) studies deleted or substituted more than experienced L1 writers in the same studies who were more inclined to add materials to their texts. In a sense, the writing processes of the writers in the present study consisting of mostly deletions and substitutitons created a "stuttering effect" as in the case of Bridwell's (1980) inexperienced writers.

The person who utilized deep level revisions most in English was SW7. However, the same student writer revised less frequently in Turkish (6 vs. 2) (see Appendix IV, Table 7). Moreover, while her revision operations focused on deletion, reorganization and combination in E1, she used addition and substitution operations in T1. Furthermore, SW4 who followed SW7 in terms of the number of frequencies with which she utilized deep level revision operations in E1, revised less frequently in Turkish. Hence, as in Hall's (1990) study, deep level revision in EFL writing of individual writers was not simply a mirror image of that process in L1 in terms of quantity or quality.

Effects of L2 Writing instruction on English and Turkish writing processes

With regard to the second and third research question, namely whether L2 writing instruction affected English and Turkish writing strategies, first English compositions written before and after the instruction were compared in terms of: a) prewriting strategies and time spent on prewriting; b) composing strategies and time spent on composing; and c) global quality scoring and length. This was followed by an analysis of the Turkish compositions written before and after the instruction in terms of the three criteria listed above.

Prewriting strategies

The time devoted to prewriting increased significantly both for Turkish ($p<.05$) and English ($p<.01$) compositions (see Appendix V, Table 4). According to the results, the student writers utilized the planning, reading the topic and assessing, commenting and questioning strategies more frequently during the prewriting process of T2 compositions than T1 compositions, but these differences were significant only in the case of planning ($p<.05$). On the other hand, the SWs read the topic, planned and rehearsed more frequently at the significance level of $p<.05$ during the prewriting processes of E2 than E1 compositions. However, they utilized the assessing, commenting and questioning strategies in equal frequencies during E1 and E2 prewriting processes.

Another important difference between the prewriting processes in E1 and E2 is that the subjects tried to avoid using Turkish while engaged in prewriting activities.

During the E2 prewriting stage, the subjects were engaged in brainstorming and generating ideas about the assigned topic. During the prewriting stage of the T2 compositions on the other hand, the student writers were not so much concerned with writing the first sentence of the introduction paragraph of their Turkish composition. Instead, they were more concerned about the structural organization. As in the case of E2, they were more interested in discovering their ideas during the writing process. So, L2 writing instruction seemed to help these subjects improve their idea generation strategies while writing both in English and Turkish.

Composing strategies

General writing strategies

The frequency with which the student writers planned and paused increased significantly during E2 and T2 composing (see Appendix V, Table 5). Moreover, while the frequencies with which the student writers rehearsed for E2 increased significantly ($p<.05$), the frequencies with which they rehearsed for T2 slightly decreased (10.6 vs. 9.38) but this difference was not statistically significant. According to the findings, the

frequencies with which the student writers utilized the other general writing strategies during E2 and T2 did not differ significantly from those of E1 and T1.

Planning operations served for the same purposes during the writing processes of E1 and E2 and T1 and T2. In other words, in all cases the student writers planned what to talk about next as well as focusing on the sequence of what followed.

The subjects rehearsed for similar reasons in T1 and T2. In T1, they rehearsed or tried out ideas for what to write and how to express that very idea in the best possible way. In addition, they rehearsed for finding out the best semantic and syntactic options to enrich content. While the student writers used this composing strategy to find out the appropriate word and to check their grammar for E1, they started to search for options to enrich content as well.

Moreover, the subjects who rehearsed the most and the least during T1 and T2 were the same: SW7 (T1 18, T2 8), SW1 (T1 3, T2 1) (see Appendix V, Table 6).

Rescanning in E1 and E2 showed some difference in terms of purpose. In E1, rescanning was mostly done to do surface level revisions or editing. However, in E2 recanning was done to generate ideas and to check if they expressed what they thought properly. Unlike in English, the subjects rescanned for the same reasons in T1 and T2. They mainly rescanned to move forward and to develop the next idea or the idea that they were still working on. They also rescanned to see whether what they were writing followed the conceptual framework that they thought of or planned originally.

The SW4 who rescanned the most both in E1 (13) and E2 (8). SWs1 and 2 never applied this strategy while the others utilized it once or twice. SW8 did not rescan at all in T1 and T2 (see Appendix V, Table 9, and Appendix V, Table 6).

The protocol analyses revealed that the comments, assesments and questionnings of the students during E2 and T2 reflected the same concerns as those during T1 and E1. In other words, they were related to the content as well as their English. Moreover, the protocols also revealed that they enjoyed the writing process and felt more self-confident about writing. In addition, they seemed to be more critical of their own writing.

Surface level revision strategies

There was a decrease in the frequencies with which the student writers utilized all surface level revision strategies for E2 excepting punctuation (see Appendix V, Table 5). However, these differences were statistically significant only in terms of addition ($p<.05$), substitution ($p<.05$) and sentence structure ($p<.05$). Similarly there was a decrease in the frequencies with which the student writers employed all surface level revision strategies for T2 excepting addition and word form. Yet none of these differences were statistically significant. According to the results, all of the student writers utilized the surface level revision operations less frequently in E2 than in E1. SW6, for example, who had edited most in E1 (25) used this operation 4 times in E2. SW4 who had edited 13 times in E!

used this strategy 2 times in E2 (see Appendix VB, Table 10). Word form was the most frequently used strategy in E1 whereas in E2 the most frequently used strategy was substitution. In T2, again SW6 together with SW8 edited the most. In T1 deletion of words or phrases was the most frequently used strategy. In T2, on the other hand, addition was the most frequently used strategy.

Deep level revision strategies

The frequencies with which the student writers employed each individual deep level revision strategy for E1 and E2 and T1 and T2 tasks were also compared. The results indicated that student writers utilized substitution and reorganization strategies more frequently in E2 than in E1, at the significance level of $p<.05$ (see Appendix V, Table 5). Although they also employed each of the other deep level revision strategies (addition, deletion, and combination) more frequently in E2 than in E1, these differences were not statistically significant.

The revision strategy most frequently used in E1 was combination whereas in E2 the most frequently utilized strategy was reorganizaton followed by substitution, deletion and addition.

The student writers utilized deep level addition more frequently for T2 than T1 at the significance level of $p<.05$ (see Appendix V, Table 5). They reorganized parts of their T2 compositions more frequently than those of the T1 compositions and utilized less combination, substitution and deletion operations. Yet these differences were not statistically significant. The deep level revision strategy they utilized most frequently for T2 was addition followed by deletion and reorganization whereas deletion and substitution were the most frequently used strategies for T1. The person who revised most in T1 and T2 and E2 was SW7 followed by SW6 (see Appendix V, Table 11, and Appendix V, Table 8).

Global quality scoring and time spent on composing

When the compositions written by the student writers in English before and after the instruction were compared, the results indicated that the mean scores for T2 compositions were higher than those of T1 compositions, but these differences were not statistically significant (see Appendix V, Table 3). However, the mean scores for E2 compositions were significantly higher than those of E1 compositions ($p<.01$).

The time the student writers devoted for composing E2 increased significantly ($p<.05$) (see Appendix V, Table 2). In case of T2, however, this increase was not statistically significant.

Attitudes to Writing

The findings of the self-evaluation questionnaire and the interviews indicated that the student writers in this study reacted positively to a 19-week writing instruction in English. The findings also helped to explain the positive effects of writing instruction on their composing processes in English and Turkish. There were individual differences in student writers' attitudes to writing in English and Turkish varied before they were exposed to writing instruction in E2. Student writers 2, 4, 6, 7 and 8 favored writing in English mainly because writing in Turkish was more demanding. In general, they felt that one is more critical when evaluating his/her writing in his/her native language. Student writers 1, 3 and 5, on the other hand, preferred writing in Turkish basically because they could not express themselves with ease in English.

However, all students had positive attitudes toward writing both in English and Turkish after the writing instruction. The student writers felt that learning the English discourse modes and practicing these modes through writing in the class developed their writing skills in English. Student Writer 7 expressed her feelings as follows:

> The writing instruction had a positive impact on my writing. I did not use to experiment with writing as I do now. I am convinced that the more I write, the better my writing gets. I believe that I feel more at ease than before writing on any topic. Also, being exposed to different genres help.

In relation to the student writers' attitudes towards the focus of the course on helping students to create an integrated meaning structure by organizing ideas into a coherent whole, student writers made comments similar to the following,

> In senior high, I would just write without much concern for the organization of ideas. But now I feel that organizational structure of the compositions is very important. It has a positive role in making my points more effective.

Another factor that generated a positive feeling toward writing in English was the way the writing was taught. The student writers favoured the writing instruction which was based on interactivist orientation to writing process to traditional way of teaching/learning writing which is learning-by-doing. They agreed that the former was radically different than the latter and made a difference in the way they approach writing. SW6 stated her opinion as follows:

> This course was different than the one we had in junior and senior high. We were given a lot of freedom, which made writing fun and an enjoyable proces. For instance, nobody told us to write on a specific topic. A general topic was given without setting limits. Then we discussed and shared ideas about what we could write on this topic and how we would improve what we wrote.

Another feature of the writing instruction which the student writers liked was reflective and evaluative activities that they were encouraged to engage in. They found these activities particularyly helpful at the revision stage of the writing process. In other words, they felt that both the teacher and the student feedback which occured as discussions on the clarity of purpose, expectations from the task, specification or

clarification of vague points, and suggestions for possible revisions proved to be very valuable for the quality of their written work. SW7 said:

> We read each others papers and expressed what we liked about the paper and what needed to be revised and/or clarified in our paper. This helped us to learn how to take a critical look at our papers and make necessary changes. Exchanging ideas was more enjoyable than writing in isolation.

Perhaps this is why they planned, rehearsed and paused more during the course of writing English and Turkish compositions after the writing instruction. However, the improvement in rehearsing strategy was not statistically significant in the case of the Turkish compositions. Moreover, the increase in the combined frequencies with which the student writers employed all deep-level revision strategies and the mean scores for compositions were statistically significant only in the case of English compositions. These results can perhaps be explained by the fact that these student writers were not exposed to formal instruction in Turkish as was the case in English. However, the findings also indicated that the type of writing instruction in English built their self confidence in writing both in English and Turkish.

The findings suggest that exposure to various genres, class discussions or brainstorming activity, and opportunities for individual expression and creativity seemed to encourage and give incentive to the student writers to make changes at the idea level in their English essays. Perhaps a Turkish composition instruction of similar nature could encourage more revisions at the idea level while composing in Turkish.

According to the findings, in contrast to deep level revision strategies, there was a decrease in almost all of the surface level revision strategies utilized by the student writers during the writing of both English and Turkish compositions. This might be because of the activites they were involved in relation to writing and experimenting at the idea level and a probable improvement in the language proficiency in the case of the English compositions. For example, SW3 in relation to her writing in English commented as follows:

> In highschool classes, teachers would mainly focus on grammar mistakes in our compositions. Then we would discuss these mistakes in the class. Now, we also get feedback on the content. Also, as our English improves, we do not make such grammar mistakes.

According to the findings, there was a change in the purposes for which the student writers planned and revised both in English and Turkish after the instruction. For example, some student writers' (SW4, 5, 6 and 7) planning operations after the 19th-week instruction seemed to focus more on creating an integrated meaning structure. The revision operations of these same students also indicated more of a discourse level concern than focusing on individual words or phrases.

Finally the results also indicated that there were differences in the ways individual writers produced a text and their approaches to writing. For example, student writers

(SW 4, 5, 6, and 7) utilized rehearsing, planning, deep level revision operations most and they had more positive attitude toward writing both in English and Turkish than the other student writers before and after the instruction. In relation to writing in both languages, they made comments similar to the following: "As I write more, I feel that I am writing better, which motivates me and makes me like writing more." Moreover, a close analysis of the frequency proportions indicate that these same student writers benefited more from the instruction.

Conclusion and Implications

This study compared the relationship of Turkish and English writing strategies of 8 Turkish EFL student writers. In addition, the study analyzed the possible effects of EFL writing instruction on Turkish and English writing strategies of these students and their attitudes to writing in English and Turkish.

The results indicated that there were more similarities than differences between their L1 and L2 writing processes. In other words, the L1 and L2 writing processes of each individual writer were generally similar excepting some differences in terms of revision strategies. These results confirmed the findings of some previous studies (Arndt, 1987; Chelela. 1982; Cumming, 1987; Gaskill, 1987; Hall, 1990; Jones and Tetroe, 1987). Moreover, the findings of this study partially confirms the arguments that literacy skills can transfer across languages provided that they have reached a proficiency level sufficient to permit cognitively demanding language use (Canale, Frenette and Belanger, 1988; Cummins, 1981; Goldman, Reyes and Vornhagen, 1984; Mace-Metluck, Dominquez, Holtzman and Hoover, 1983). However, the differences between these advanced proficiency level student writers' L1 and L2 revision strategies also support the position that proficiency is a necessary but not a sufficient condition for transfer (McLaughlin, 1987). According to McLaughlin, it is possible that transfer results from a combination of a threshold level of proficiency and restructuring in Rumelhart and Norman's (1978) sense. McLaughlin pointed out that "learning at such time involves the modification of additional structures and adoption of new strategies and procedures" (1987:63).

The findings of this study indicated that the type of writing instruction (i.e., interactive approach to writing process with emphasis on academic writing) that these student writers were exposed to helped them to improve their EFL writing strategies. Hence, these findings confirmed the findings of previous studies conducted in ESL contexts (Diaz, 1985; Edelsky, 1982, 1984; Spack, 1984; Urzua, 1987). The writing instruction also positively affected the student writers' writing strategies in Turkish. This finding in a sense provides a positive answer to Hall's (1990) question whether gains in L2 writing strategies can be transferred to L1 writing strategies, thus indicating that the process of transfer is bi-directional and interactive. However, the findings of the study

also suggested that the impact of EFL writing instruction on writing in English was far more distinctive than on writing in Turkish. This may to a certain extent emphasize the importance of the practice effect in learning to utilize some writing strategies. On the other hand, the findings of this study that improvement in the writing processes of these students was not significant in terms of all the writing strategies also supports the arguments that there is more to learning a complex cognitive skill than developing automaticity with the right practice (Karmioff-Smith, 1986; Rumelhart and Norman, 1978).

The student writers who participated in this study favored writing instruction based on interactivist orientation to writing process in an academic setting. They in general felt that the class activites encouraging free exploration of ideas, as well as focusing the form of the compositions was very helpful. In addition, they felt that peer feedback was very beneficial for the revision of their texts. Their overall positive attitude to writing confirms Couzijn's findings (in this volume) which indicated that writing instruction similar to the one in this study is more effective than traditional, practice-oriented methods of language skill instruction. Hence, in EFL academic writing courses, similar to the present one, focusing on shaping and structuring the overall meaning as well as interactive approach to writing process could be effective. Moreover, for student writers previously exposed to traditional approaches to writing as was the case in the present study, there may be a particular need to encourage creativity and individuality.

The findings and pedagogical implications of this study should be viewed in the light of its several limitations. Among these limitations is the fact that this study was conducted with a limited number of students. This makes it difficult to draw strong generalizations as is the case with most process studies in the field. Finally, although it is accepted as the most widely used technique, think-aloud protocol technique needs to be replaced or cross-validated by other data collection procedures such as observation.

Note: The authors thank Dr. Emine Erktin for her suggestions of the statistical procedures to be used for this research. The authors also thank Yakut Gazi and Gülcan Erçetin for the statistical processing of the data. Many thanks go to Zeynep Koçoğlu for her continous help in data collection, and in tabulation of the results. The authors also gratefully acknowledge Prof. Pogner and Prof. Tim Caudrey for his valuable suggestions on the earlier versions of this paper. Finally, the authors thank Boğaziçi University Research Fund, without whose grant this project would not have been materialized.

Authors:

Ayşe Akyel is an Associate Professor of Foreign Language Education at Boğaziçi University Faculty of Education Istanbul, Turkey. She teaches TEFL methodology and skills, teacher education and literature in EFL courses at graduate and undergraduate levels. She has published articles on EFL writing, teacher education, the use of literature in EFL, and ESP in Belgium, England, Sweden, Spain, Canada, and Turkey.

Sibel Kamışlı an Assistant Professor of Foreign Language Education at Boğaziçi University Faculty of Education İstanbul, Turkey. She teaches a survey course of applied linguistics, computers and language teaching, sociolinguistics, ELT methodology and reseach methods at graduate and undergraduate levels. At present, she is working on speech acts, EFL writing, and computers.

REFERENCES

Akyel, A. 1994. First language use in EFL writing: Planning in Turkish vs. planning in English. *International Journal of Applied Linguistics* 4 (2): 169-196.

Arndt, V. 1987. Six writers in search of texts: A protocol-based study of L1 and L2 writing. *ELT Journal* 41 (4): 257-267.

Bakhtin, M. M. and P. N. Medvedev. 1987. *The formal method in literary scholarship: A critical introduction to sociological poetics.* Cambridge MA: Harvard University Press.

Bizzel, P. 1982. Cognition, convention and certainity: What we need to know about writing. *PRE/TEXT* 3: 213-243.

Canale, M., N. Frenette & M. Belanger. 1988. Evaluation of minority student writing in first and second language. In: Fine, J. (ed.). *Second language discourse: A textbook of current research* Norwood, N.J.: Ablex: 147-165.

Caudrey, T. 1996. *Mutliple drafting in and outside the L2 writing classroom.*

Couzijn, M. 1996. *Writing and reading activities observed by secondary students: Effects on learning and transfer.*

Chelela, S. I. 1983. *The composing processes of two Spanish speakers and the coherence of their texts: A case study.* Unpublished doctoral dissertation, New York University, New York.

Cotton, J. and R. Klatzky. (eds.). 1978. *Semantic factors in cognition* . Hillsdale, N. J.: Lawrence Erlbaum.

Cumming, A. 1989. Writing expertise and second language proficiency. *Language Learning* 39 (1): 81-141.

Cummins, J. 1981. The role of primary language development in promoting educational success for language minority students. In schooling and language minority student: A theoretical framework. Office of Bilingual Bicultural Education, California State Department of Education, Sacremento. Los Angeles: Evaluation, Dissemination and Assessment Center, California State University: 3-49.

Diaz, D. 1985. *The process classroom and the adult L2 writer*. Unpublished Doctoral Dissertation, Teachers College, Columbia University, New York.

Edelsky, C. 1982. Writing in a bilingual program: The relation of L1 and L2 texts. *TESOL Quarterly* 16 (2): 211-228.

Emig, J. 1977. Writing as a mode of learning. *College Composition and Communication* 28 (2): 122-128.

Faigley, L., & S. Witte. 1981. Analysing revision. *College Composition and Communication* 32 (4): 400-414.

Fine, J. (ed.). 1988. *Second language discourse: A textbook of current research* Norwood, N.J.: Ablex.

Flower, L., & J.R. Hayes. 1980. The cognition of discovery: Defining a rhetorical problem. *College Composition and Communication* 31 (1): 21-32.

Friedlander, A. 1991. Composing in English: Effects of a first language on writing in English as a second language. In B. Kroll (ed.). *Second language writing*. New York: Cambridge University Press: 109-125.

Gaskill, W. 1987. *Revising in Spanish and English as a second language: A process-oriented study of composition*. Unpublished Doctoral Dissertation, University of California, Los Angeles.

Goldman, S.R., M. Reyes & C.K. Varnhagen. 1984. Understanding fables in first and second languages. *Journal of the National Association for Bilingual Education*. (NABE) 8: 35-66.

Hall, C. 1990. Managing the complexity of revising across languages. *TESOL Quarterly* 24 (1): 43-60.

Horowitz, D. 1986. Process not product: Less than meets the eye. *TESOL Quarterly* 20 (1): 141-144.

Hughes, A. 1988. Introducing a needs based test of English language proficiency into an English-medium university in Turkey. In A. Hughes (ed.). *Testing English for university study*. Hong Kong: Modern English Publications and the British Council: 134-153.

Hughes, A. (ed.). 1988. *Testing English for university study*. Hong Kong: Modern English Publications and the British Council.

Jacobs, S. E. 1982. Composing and coherence: The writing of eleven pre-medical students. *Linguistics and Literacy Series*. Washington, DC: Center of Applied Linguistics.

Jones, C. S. 1982. Composing in a second language: A process study. Paper presented at the 16th Annual TESOL Convention, Honolulu.

Jones, S., and J. Tetroe. 1987. Composing in a second language. In A. Matsuhashi (ed.), *Writing in real time: Modelling production processes*. Norwood, NJ: Ablex: 34-57

Kroll, B. (ed.). 1990. *Second language writing*. New York: Cambridge University Press.

Karmiloff-Smith, A. 1986. Stage/structure, versus phase/process in modelling linguistic and cognitive development. In I. Levin (ed.). *Stage and structure: reopening the debate*. Norwood, N. J.: Ablex.

Levin, I. (ed.). 1986. *Stage and structure: reopening the debate*. Norwood, N. J.: Ablex.

Mace-Matluck, B. J., D. Dominguez, W. Holtzman, W. Hoover. 1983. *Language and literacy in bilingual instruction*. Austin, Texas: Southwest Educational Development Laboratory.

McLaughlin, B. 1987. Reading in a second language: Studies with adult and child learners. In S. R. Goldman and H. T. Trueta (eds.), *Becoming literate in English as a second language*. Norwood, NJ: Ablex.

Matsuhashi, A. (ed.). 1987. *Writing in real time: Modelling production processes.* Norwood, NJ: Ablex.

Nystrand, M. 1989. A social interactive model of writing. Written Communication 6, 1: 66-85.

Nystrand, M. 1992. Social interactionism versus social constructionism: Bakhtin, Rommetveit, and the semotitics of written text. In A. H. Wold (ed.), *The dialogical alternative: Towards a theory of language and mind.* Oslo University Press. 157-173.

Perl, S. 1979. The composing processes of unskilled college writers. *Research in the Teaching of English* 13 (4): 317-336.

Pianko, S. 1979. A description of the composing process of college freshmen writers. *Research in the Teaching of English* 13 (1): 5-22.

Pogner, K. H. 1996. Writing in the workplace: From a case study.

Raimes, A. 1985. What unskilled writers do as they write: A classroom study of composing. *TESOL Quarterly* 19 (2): 229-258.

Raimes, A. 1987. Language proficiency, writing ability and composing strategies: A study of ESL college writers. *Language Learning* 37 (3): 439-468.

Rose, M. 1980. Rigid rules, inflexible plans and the stifling of language: A cognitivist analysis of writer's block. *College Composition and Communication*, 31 (4): 389-401.

Rumelhart, D. E., D.A. Norman. 1978. Accretion, tuning and restruction: Three modes of learning. In J. Cotton and R. Klatzky. (eds.). *Semantic factors in cognition* . Hillsdale, N. J.: Lawrence Erlbaum.

Silva, T. 1990. Second language composition instruction: Developments, issues and directions in ESL. In B. Kroll (ed.). *Second language writing.* New York: Cambridge University Press: 109-125.

Sommers, N. 1980. Revision strategies of student writers and experienced adult writers. *College Composition and Communication* 31 (4): 378-388.

Spack, R. 1984. Invention strategies and the ESL college composition student. *TESOL Quarterly* 18 (4): 649-670.

Urzua, C. 1987. "You stopped too soon": Second language children composing and revising. *TESOL Quarterly* 21 (2): 279-304.

Zamel, V. 1982. Writing: The process of discovering meaning. *TESOL Quarterly* 16 (2): 195-209.

Zamel, V. 1983. The composing processes of advanced ESL students: Six case studies. *TESOL Quarterly* 17 (2): 165-187.

APPENDIX I

Task I:

A) Describe your neighborhood to give a friend of yours a general idea about this place he/she is going to live for a year.

B) Describe a person or a place that influenced your life.

Task II:

A) Describe life in winter time in İstanbul.

B) Describe the life style of a typical Turkish university student.

APPENDIX II

Self-Evaluation Form[1]

1- Have you ever written a composition similar to the one you just wrote? If so, when? What did you feel then? Do you see any differences between the two?

2- If you were to evaluate your composition, how would you rate it. a) very good b) good c) fair d) weak. Why?

3- Did you do anything before you started writing? If so, what?

4- Describe what you did during the process of writing your composition.

5- Was there anything that you paid particular attention to during the process of writing?

6- What did you do just before you finished your composition?

7- What do you think of the writing instruction that you were exposed to?[2]

---

[1] This questionnaire was given in Turkish to the student writers.

[2] This question was added to the questionnaire given to the students after the instruction.

APPENDIX III

General Writing Strategies[3]

While-composing

ACQ assessing, commenting and questioning

Pl	planning
Rh	rehearsing
R	rescanning
RW	reading the whole text
P	pause
Tr	translation

Pre-writing

Pl	planning
Rh	rehearsing
RW	reading the topic
ACQ	assessing
	commenting
	questionning

Deep-Level Revision Strategies

a	addition
del	deletion
sub	substitution
r	reorganisation
c	combination

Surface-Level Editing

a	addition
del	deletion
sub	substitution
sp	spelling
wf	word form
p	punctuation
v	verb form or tense
ss	sentence structure

[3] adopted from Raimes (1987) and Pennington and Brock (1993).

TABLE 1

PREWRITING STRATEGIES

	planning		rehearsing		reading topic		question. comm./asses.	
	T1	E1	T1	E1	T1	E1	T1	E1
SW1						1		1
SW2								1
SW3		1						2
SW4		1			1	1	1	3
SW5	1	2			1	1	1	6
SW6	1	2		1	1	1	1	7
SW7	1	2		1	1	2	2	9
SW8	3	1			1	1	1	3
TOTAL	6	9		2	5	7	7	32

TABLE 2

PRE-WRITING AND COMPOSING TIMES

		n	MR	X	Sd	Zvalue
PRE-WRITING	T1	8	6.00	75.13	46.30	.92
	E1	8	2.00	39.50	26.41	
COMPOSING	T1	8	4.33	1499.63	1920.79	.48
	E1	8	4.60	1638.25	927.45	

TABLE 3

GLOBAL QUALITY SCORING

		n	MR	X	Sd	Zvalue
SCORES	T1	8	4.50	71.88	5.94	**2.52
	E1	8		65.00	5.98	

TABLE 4

GENERAL WRITING STRATEGIES (T1 - E1)

		n	MR	X	Sd	Zvalue
asses./comme.	T	8	3.90	8.38	6.74	*1.89
questioning	E	8	1.50	4.75	5.29	
planning	T	8	2.67	2.38	2.77	.53
	E	8	4.33	3.25	3.20	
rescanning	T	8	2.50	1.50	1.93	1.68
	E	8	3.70	3.13	4.42	
rehearsing	T	8	5.20	10.63	8.43	1.12
	E	8	3.33	5.63	3.58	
reading topic	T	8	3.00	.13	.35	1.21
	E	8	3.00	.50	.54	
reading text	T	8	2.50	1.25	1.39	*1.83
	E	8	0,00	.25	.46	
pause	T	8	4.75	1.38	.92	.76
	E	8	3.70	1.75	1.75	
translation						

SURFACE LEVEL REVISION

		n	MR	X	Sd	Zvalue
addition	T	8		.25	.46	*2.20
	E	8	3.50	1.88	1.46	
deletion	T	8	2.50	.63	.74	.91
	E	8	2.50	.88	1.13	
substi.	T	8	1.50	.13	.35	*2.31
	E	8	4.93	2.38	1.51	
punctu.	T	8	0,00	0,00	0,00	1.00
	E	8	1.00	.13	.35	
spell	T	8	0,00	0,00	0,00	1.60
	E	8	2.00	.50	.76	
sent.stru.	T	8	3.00	.13	.35	1.57
	E	8	3.60	.75	.71	
verbtense	T	8	2.17	.63	.92	.27
	E	8	4.25	.75	1.17	
wordform	T	8	2.00	.38	.74	1.48
	E	8	3.25	3.25	4.68	

DEEP LEVEL REVISION

		n	MR	X	Sd	Z-value
addit.	T	8	2.50	.38	.52	
	E	8	2.50	.38	.52	
delet.	T	8	3.00	1.13	1.55	1.21
	E	8	3.00	.25	.71	
substi.	T	8	3.90	1.13	.84	.93
	E	8	4.25	.63	.74	
reorga.	T	8	2.50	.25	.46	.67
	E	8	3.33	.50	.76	
combi.	T	8	3.00	.13	.35	1.57
	E	8	3.60	.75	.71	

T=TURKISH/E=ENGLISH
MR=MEAN RANK (1)
*p<.05
**p<.01
X-mean (2)

(1). Like most non parametric tests, Wilcoxon Matched-paires Signed Rank Test uses ranks instead of scores. Moreover this test uses z distribution for the test of significance of differences (z-value).

(2). As mentioned earlier, SPSS (Statistical Package of Social Sciences) was used for this study. SPSS provides both the mean ranks and mean scores. Moreover, according to SPSS, the scores of the subjects were rated in ascending order i.e., higher the mean rank, higher the score.

BEST COPY AVAILABLE

TABLE 1
PREWRITING STRATEGIES

	planning		rehearing		reading topic		question./ comm./ asses.	
	T2	E2	T2	E2	T2	E2	T2	E2
SW1		1				1		
SW2		1			1			1
SW3	1	1		1				1
SW4	1	1		1	1	1	1	
SW5	2	2		1	1	1	2	2
SW6	2	3		2	3	1	3	2
SW7	2	3		3	2	2	2	3
SW8	1	1						
TOTAL	9	13		8	8	6	8	9

TABLE 2
PRE-WRITING AND COMPOSING TIMES

		TURKISH					ENGLISH				
		n	MR	X	Sd	Z-value	n	MR	X	Sd	Zvalue
PRE-WRITING	pre	8	2.00	75.13	46.31	*2.24	8	0,00	39.50	26.41	**2.52
	post	8	4.86	126.50	38.64		8	4.50	177.63	82.72	
COMPOSING	pre	8	4.33	1499.63	1920.79	.70	8	5.00	1638.25	927.45	*1.82
	post	8	4.60	1746.13	823.78		8	4.43	1959.00	1086.04	

TABLE 3
GLOBAL QUALITY SCORING

		TURKISH					ENGLISH				
		n	MR	X	Sd	Z-value	n	MR	X	Sd	Zvalue
SCORES	pre	8	0,00	71.82	5.94	1.83	8	0,00	65.00	5.98	**2.52
	post	8	2.50	74.38	7.76		8	4.50	73.75	7.44	

TABLE 4
PREWRITING STRATEGIES (T1-T2, E1-E2, T1-E1)

		n	MR	X	Sd	Z-value		n	MR	X	Sd	Zvalue		n	MR	X	Sd	Zvalue
assess./commentin	T1	8	1.50	.63	.52	.80	E1	8	4.50	.88	.64	.63	T1	8	0,00	0,00	0,00	1.34
questionning	T2	8	2.25	.88	1.13		E2	8	4.50	1.13	1.13		E1	8	0,00	0,00	0,00	
planning	T1	8	0,00	.38	.52	*2.20	E1	8	0,00	1.13	.83	*1.82	T1	8	0,00	.38	.52	*2.20
	T2	8	3.50	1.13	.83		E2	8	2.50	1.63	.92		E1	8	3.50	1.13	.83	
rehearsing	T1	8	0,00	0,00	0,00	0,00	E1	8	0,00	.25	.46	*2.02	T1	8	0,00	0,00	0,00	1.34
	T2	8	0,00	0,00	0,00		E2	8	3.00	1.00	1.07		E1	8	1.50	.25	.46	
reading topic	T1	8	2.00	.63	.52	1.10	E1	8	0,00	.13	.35	*2.02	T1	8	2.50	.63	.52	*1.83
	T2	8	2.67	1.00	1.07		E2	8	3.00	.75	.71		E1	8	0,00	.13	.35	

T=TURKISH / E= ENGLISH
MR= MEAN RANK (1)
*p<.05
**p<.01
X-mean (2)

(1). Like most non parametric tests, Wilcoxon Matched-paires Signed Rank Test uses ranks instead of scores. Moreover this test uses z distribution for the test of significance of differences (z-value).

(2). As mentioned earlier, SPSS (Statistical Package of Social Sciences) was used for this study. SPSS provides both the mean ranks and mean scores. Moreover, according to SPSS, the scores of the subjects were rated in ascending order i.e., higher the mean rank, higher the score.

BEST COPY AVAILABLE

TABLE 5

GENERAL WRITING STRATEGIES (T1-T2; E1-E2)												
	TURKISH						ENGLISH					
		n	MR	X	Sd	Z-value	n	MR	X	Sd	Z-value
assess./commenting	pre	8	6.25	8.38	6.74	.77	8	3.50	4.75	5.29	1.47
questionning	post	8	3.92	9.38	7.23		8	3.50	9.00	7.73	
planning	pre	8	5.00	2.38	2.77	*1.89	8	4.25	3.25	3.20	*2.22
	post	8	3.00	4.13	1.36		8	4.58	6.13	6.33	
rescanning	pre	8	3.83	1.50	1.93	.21	8	2.67	3.13	4.42	1.09
	post	8	3.17	1.38	1.06		8	2.00	2.00	2.62	
rehearsing	pre	8	4.92	10.63	8.43	.61	8	3.00	5.63	3.58	*2.18
	post	8	3.25	9.38	3.25		8	4.40	9.50	5.43	
reading topic	pre	8	4.00	.13	.35	1.69	8	2.50	.50	.54	.91
	post	8	4.00	.75	.46		8	2.50	.25	.46	
reading text	pre	8	2.67	1.25	1.39	.13	8	2.00	.25	.46	.53
	post	8	3.50	1.13	.84		8	2.00	.38	.52	
pause	pre	8	.00	1.38	.92	*2.37	8	1.50	1.75	1.75	*2.11
	post	8	4.00	4.13	2.80		8	4.42	4.75	3.77	
translation	pre						8	1.00	2.50	2.05	.45
	post					*	8	2.00	1.63	3.46	
SURFACE-LEVEL REVISION											
addition	pre	8	3.00	.25	.46	1.68	8	3.50	1.88	1.46	*2.20
	post	8	5.00	1.13	.84		8	.00	.25	.46	
deletion	pre	8	2.50	.63	.74	.00	8	4.75	.88	1.13	.14
	post	8	2.50	.63	.52		8	4.25	.75	.89	
substitution	pre	8	1.00	.13	.35	1.00	8	3.00	2.38	1.51	*2.02
	post	8	.00	.00	.00		8	.00	1.25	1.04	
punctuation	pre	8	.00	.00	.00	1.00	8	.00	.13	.35	1.34
	post	8	1.00	.13	.35		8	1.50	.38	.75	
spelling	pre	8	.00	.00	.00	1.34	8	2.67	.50	.76	1.09
	post	8	1.50	.25	.46		8	2.00	.13	.35	
sentence structure	pre	8	1.00	.13	.35	1.00	8	3.00	.75	.71	*2.02
	post	8	.00	.00	.00		8	.00	.00	.00	
verb-tense	pre	8	3.00	.63	.92	.37	8	2.00	.75	1.17	1.60
	post	8	2.00	.50	.76		8	.00	.25	.71	
word form	pre	8	2.00	.38	.74	1.48	8	4.00	3.25	4.68	1.21
	post	8	3.25	1.38	1.60		8	1.50	.50	.54	
DEEP-LEVEL REVISION											
addition	pre	8	1.50	.38	.52	*1.89	8	2.50	.38	.52	1.35
	post	8	3.90	1.63	1.19		8	3.13	1.13	1.25	
deletion	pre	8	5.00	1.13	1.55	.28	8	3.00	.25	.71	1.57
	post	8	4.00	1.00	.76		8	3.60	1.38	1.31	
substitution	pre	8	4.25	1.13	.84	1.36	8	2.50	.63	.74	*1.94
	post	8	2.00	.50	.76		8	4.25	1.88	1.25	
reorganization	pre	8	2.50	.25	.46	1.35	8	.00	.50	.76	*2.20
	post	8	3.13	.88	.99		8	3.50	2.25	2.25	
combination	pre	8	2.00	.13	.35	.53	8	.00	.75	.71	1.00
	post	8	2.00	.00	.46		8	1.00	.88	.64	

T= TURKISH / E= ENGLISH
MR = MEAN RANK
* $p < .05$
X-mean

APPENDIX V

TABLE 6

GENERAL WRITING STRATEGIES

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
asse+com+que	2	29	4	67	0	0	3	18	10	38	7	41	14	29	6	40	17	43	23	49	11	41	14	45	13	30	15	43	0	0	3	17	74	31	82	31
planning	1	14	0	0	0	0	1	6	4	15	1	6	1	2	0	0	4	10	2	4	0	0	1	3	8	18	4	11	1	10	0	0	26	11	24	9
rescanning	0	0	1	17	0	0	2	12	3	12	2	12	5	10	2	13	1	3	3	6	3	11	1	3	0	0	0	0	0	0	0	0	25	11	19	7
rehearsing	3	43	1	17	1	50	6	35	5	19	3	18	25	51	1	7	17	43	8	17	8	30	7	23	18	41	8	23	8	80	9	50	86	36	90	34
readingtopic	1	14	0	0	0	0	1	6	0	0	1	6	0	0	1	7	0	0	1	2	0	0	0	0	0	0	1	3	0	0	1	6	2	1	6	2
reading text	0	0	0	0	0	0	2	12	3	12	1	6	2	4	2	13	0	0	2	4	3	11	1	3	2	5	1	3	0	0	0	0	11	5	9	3
pause	0	0	0	0	1	50	2	12	1	4	2	12	2	4	3	20	1	3	8	17	2	7	7	23	3	7	6	17	1	10	5	28	11	5	37	14
translation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
TOTAL	7	100	6	100	2	100	17	100	26	100	17	100	49	100	15	100	40	100	47	100	27	100	31	100	44	100	35	100	10	100	18	100	236	100	268	100

TABLE 7

SURFACE LEVEL REVISION

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
addition	0	0	2	50	1	17	0	0	0	0	1	17	0	0	1	100	1	33	0	0	0	0	2	25	0	0	1	25	0	0	2	25	2	12	9	28
deletion	1	100	1	25	1	17	1	100	0	0	1	17	0	0	0	0	1	33	0	0	2	33	1	13	0	0	1	25	0	0	0	0	5	29	5	16
grammar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0
punctuat.	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
spelling	0	0	1	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	0	0	2	6
sent.struc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	1	6	0	0
verb-tense	0	0	0	0	2	33	0	0	0	0	1	17	0	0	0	0	0	0	0	0	2	33	1	13	0	0	0	0	1	100	2	25	5	29	4	13
word form	0	0	0	0	2	33	0	0	0	0	2	33	0	0	0	0	0	0	0	0	1	17	4	50	0	0	2	50	0	0	3	38	3	18	11	34
TOTAL	1	100	4	100	6	100	1	100	0	0	6	100	0	0	1	100	3	100	0	0	6	100	8	100	0	0	4	100	1	100	8	100	17	100	32	100

TABLE 8

DEEP LEVEL REVISION

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
addition	0	0	1	50	0	0	2	40	1	50	0	0	0	0	2	50	1	25	1	33	0	0	4	44	1	50	1	20	0	0	2	67	3	13	13	38
deletion	1	25	0	0	3	75	1	20	0	0	1	33	0	0	2	50	0	0	1	33	4	67	2	22	0	0	1	20	1	100	0	0	9	38	8	24
substitution	2	50	0	0	0	0	1	20	1	50	1	33	1	100	0	0	2	50	0	0	2	33	0	0	1	50	2	40	0	0	0	0	9	38	4	12
reorganizat.	1	25	1	50	0	0	1	20	0	0	1	33	0	0	0	0	1	25	0	0	0	0	3	33	0	0	0	0	0	0	1	33	2	8	7	21
combination	0	0	0	0	1	25	0	0	0	0	0	0	0	0	0	0	0	0	1	33	0	0	0	0	0	0	1	20	0	0	0	0	1	4	2	6
TOTAL	4	100	2	100	4	100	5	100	2	100	3	100	1	100	4	100	4	100	3	100	6	100	9	100	2	100	5	100	1	100	3	100	24	100	34	100

APPENDIX V

TABLE 9

GENERAL WRITING STRATEGIES

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
asse+com+quc	3	100	5	38	0	0	3	19	3	16	3	14	7	23	7	13	16	55	13	33	7	27	24	38	2	6	15	31	0	0	2	12	38	23	72	24
planning	0	0	5	38	1	11	0	0	1	5	2	10	7	23	15	29	1	3	5	13	6	23	17	27	8	25	3	6	1	7	2	12	26	16	49	16
rescanning	0	0	0	0	0	0	0	0	6	32	1	5	13	42	8	15	2	7	2	5	2	8	1	2	1	3	3	6	1	7	1	6	25	15	16	5
rehearsing	0	0	3	23	5	56	10	63	9	47	9	43	1	3	17	33	7	24	18	46	5	19	8	13	9	28	5	10	9	64	6	35	45	27	110	36
readingtopic	0	0	0	0	1	11	0	0	0	0	1	5	1	3	0	0	0	0	0	0	1	4	1	2	0	0	0	0	1	7	0	0	4	2	2	1
reading text	0	0	0	0	0	0	0	0	0	0	1	5	1	3	0	0	0	0	0	0	0	0	1	1.6	1	3	1	2	0	0	0	0	2	1	3	1
pause	0	0	0	0	2	22	3	19	0	0	4	19	0	0	4	7.7	2	7	1	2.6	3	12	9	14	5	16	11	23	2	14	6	35	14	9	38	13
translation	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1.9	1	3	0	0	2	8	2	3	6	19	10	21	0	0	0	0	10	6	13	4
TOTAL	3	100	13	100	9	100	16	100	19	100	21	100	31	100	52	100	29	100	39	100	26	100	63	100	32	100	48	100	14	100	17	100	164	100	303	100

TABLE 10

SURFACE LEVEL REVISION

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
addition	2	33	0	0	1	14	0	0	0	0	0	0	2	15	0	0	2	67	1	33	5	20	0	0	1	6	1	20	2	33	0	0	15	18	2	7
deletion	1	17	0	0	2	29	0	0	0	0	2	33	1	7.7	0	0	0	0	1	33	3	12	0	0	0	0	1	20	0	0	2	40	7	8.3	6	21
substitution	1	17	1	50	3	43	1	0	3	43	1	17	2	15	0	0	0	0	0	0	5	20	3	75	2	12	2	40	3	50	2	40	19	23	10	36
punctuat.	0	0	0	0	0	0	0	0	0	0	0	0	1	8	2	100	0	0	0	0	0	0	1	25	0	0	0	0	0	0	0	0	1	1	3	11
spelling	0	0	0	0	0	0	0	0	0	0	0	0	2	15	0	0	0	0	0	0	1	4	0	0	1	6	0	0	0	0	1	20	4	5	1	4
sent.struc.	2	33	0	0	1	14	0	0	0	0	0	0	1	8	0	0	1	33	0	0	0	0	0	0	0	0	0	0	1	17	0	0	6	7	0	0
verb-tense	0	0	0	0	0	0	0	0	3	43	2	33	0	0	0	0	0	0	0	0	1	4	0	0	2	12	0	0	0	0	0	0	6	7	2	7
word form	0	0	1	50	0	0	0	0	1	14	1	17	4	31	0	0	0	0	1	33	10	40	0	0	11	65	1	20	0	0	0	0	26	31	4	14
TOTAL	6	100	2	100	7	100	1	0	7	100	6	100	13	100	2	100	3	100	3	100	25	100	4	100	17	100	5	100	6	100	5	100	84	100	28	100

TABLE 11

DEEP LEVEL REVISION

	SW1				SW2				SW3				SW4				SW5				SW6				SW7				SW8				TOTAL			
	E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2		E1		E2	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
addition	0	0	4	40	0	0	1	13	1	33	1	13	1	33	0	0	0	0	0	0	1	33	1	10	0	0	1	8	0	0	1	25	3	15	9	15
deletion	0	0	2	20	0	0	2	25	0	0	3	38	0	0	0	0	0	0	1	25	0	0	3	30	2	33	0	0	0	0	0	0	2	10	11	18
substitution	0	0	4	40	2	100	3	38	0	0	2	25	1	33	2	50	1	50	0	0	0	0	1	10	0	0	2	17	1	100	1	25	5	25	15	25
reorganizat.	0	0	0	0	0	0	1	13	1	33	1	13	0	0	1	25	0	0	2	50	1	33	4	40	2	33	7	58	0	0	2	50	4	20	18	30
combination	0	0	0	0	0	0	1	13	1	33	1	13	1	33	1	25	1	50	1	25	1	33	1	10	2	33	2	17	0	0	0	0	6	30	7	12
TOTAL	0	0	10	100	2	100	8	100	3	100	8	100	3	100	4	100	2	100	4	100	3	100	10	100	6	100	12	100	1	100	4	100	20	100	60	100

BEST COPY AVAILABLE